

STAT

"Republika" and "Maritsa III"

Steam-Heat and Electric Power Stations

Daily Newspapers
Sofia, Bulgaria
14-15 August 1951

STAT

RESTRICTED

The "Maritsa III" TETs (STEAM-HEAT AND ELECTRIC POWER PLANT)

-- Sofia, Otechestven Front, 15 Aug 51

Within a very few days the happy news will spread all over Bulgaria that the "Maritsa III" TETs (Steam-Heat and Electric Power Plant) has been completed and put into operation. Every Bulgarian home will shine brightly with rejoicing over this new victory.

The electric power produced by the "Maritsa III" TETs will be used primarily by the "Stalin" ATZ (Nitrogen Fertilizer Plant). Everyone in Bulgaria knows that the "Stalin" ATZ is the large new plant which will enrich the Bulgarian soil with beneficial fertilizer so that its yield will increase. A peasant from Vidin Okoliya or from the Dobrudzha who may not directly use electric power from the "Maritsa III" TETs will therefore rejoice in the plant's opening as much as if its electric current were lighting the bulbs in his own home. The workers of Sofia and of Ruse will rejoice equally because they realize that an increase in the yield of Bulgarian land is vitally important to the nation.

The "Maritsa III" TETs will produce large amounts of electric power. The formula for this product appears, at first glance, to require simply coal and water. But how really complex is the way that must be travelled from these raw materials to the production of life-giving electric current! In this installation it is the road from the coal bin and the water pumps near the Maritsa river to the control room where the current is distributed and sent out for consumption.

- 1 -

RESTRICTED

RESTRICTED

Even if the process for the production of electric power could be described, it is almost impossible to describe completely the technical complexity and perfection of the plant's arrangement. Its machinery, of Soviet make, is the last word in machine-building technique -- the most perfect product that Soviet manufacturing genius has created in this field. The boiler is exceptionally impressive. It has a height of 32 meters, a weight of more than 1,000 tons and uses a steam pressure of 110 atmospheres. The total length of the boiler's pipes is 30 kilometers and they will evaporate 170 tons of water per hour.

The boiler of the "Maritsa III" TETs is the eighth of its type in the world; the other 7 similar boilers are in operation in the Soviet Union. It can be operated with mazut and with coal. Its exceptional value lies in the fact that it burns the lowest grade coal -- the Maritsa Basin coal which, if not used here (as in the "Stalin" ATZ), would have to be thrown away as trash. Thus, from an almost useless product such as the Maritsa Basin coal, the "Maritsa III" TETs will produce the most precious and necessary motive power -- electricity -- for the national economy.

The buildings of the "Maritsa III" TETs rise majestically on the right bank of the Maritsa river. The 100-meter high stack of the plant rises above them with its stately form. The 50-meter high cooling tower is visible from a great distance and especially noticeable at night because of the lighted sign at its top, which says: "Glory to Stalin!"

Only 2 years ago there were vegetable gardens at this spot.

- 2 -

RESTRICTED

RESTRICTED

In 1949 brigades dug up the gardens and started excavating for the foundations of the plant. It was not until April of last year that the real construction work began, the wood coffer were erected, the concrete columns were poured and the walls erected. The difficulties encountered by the builders were numerous. Reinforcement fixtures had to be raised to great heights -- each slab contains on an average from 50 to 70 tons of material -- and the cranes were not powerful enough for that. The concrete beams supporting the roof weigh an average of 15 tons each and had to be erected to the height of the roof itself.

The cold winter months arrived just when the construction was at its peak and had reached a height of 30 to 40 meters. The wind was strong, the platforms were covered with ice, and work in such weather and at such a height was both dangerous and disagreeable. Nevertheless, the construction work was not to stop for even a moment. Day and night, in 3 shifts, the builders were still busily transporting materials while groping their way along ice-covered high scaffolds, and with frozen hands continued to build and install the enormous supporting beams. The fact that the buildings of the "Maritsa III" TETs are now ready and could be constructed in time for the installation of the machinery, is due to the heroism, the fearlessness and the unbending will of the builders. The construction was not yet complete when the heroic builders started installing the machinery with the same enthusiasm. This process was speeded up at the end of winter. The installation of machinery as complex and huge as that of the "Maritsa III" TETs could not be handled by Bulgarian engineers, technicians and workers. Here,

RESTRICTED

RESTRICTED

too, the help of the great life-giving force of Bulgarian-Soviet friendship was felt. On instructions from the great Stalin, Soviet engineers drew up the plans for the plant and its machinery and equipment were built in Soviet plants. But that was not all; the Soviet government also sent a large number of specialists, under whose guidance and participation the mounting of machinery was begun, is proceeding and will be completed. Here, too, the great truth will be confirmed, -- that with the aid of the Soviet people and by adopting and applying their rich experience, Bulgarian workers grow up and become capable of performing deeds which would not have been dreamed of under the conditions of the bourgeois-capitalist yoke.

This was demonstrated exceptionally well in the installation of the plant's boiler. The mounting of such a complex and huge boiler is a very hard job and it ordinarily takes many months. With the assistance of Soviet specialists the rapid Soviet method of assembly was introduced and applied -- the so-called block-mounting. Instead of installing each individual part separately in its place, the parts are assembled on the ground and when the block reaches a total weight of 50 tons it is raised by a mighty Soviet T-shaped crane and placed in its proper place. In this way the installation of the boiler was performed in less than 4 months.

A decisive element in the assembling of the boiler is the welding of its parts. The boiler has almost no rivets; everything is welded. In addition, the welding must be exceptionally good, exceptionally high-grade and stable because the boiler's walls

RESTRICTED

RESTRICTED

have to withstand the very high pressure of 110 atmospheres, and any failure is very dangerous. Up to a year ago there were no welders in Bulgaria who could perform welding for such high pressure. A group of Bulgarian welders was sent to the Soviet Union last year where they were trained in welding for high pressure.

A group of two Soviet and four Bulgarian welders, namely, Nikola Vlahov, Bozhin Nankov, Krustyu Abadzhiev and Dimitur Petkov, undertook all basic and important welding on the boiler. Instead of welding 3 pipes daily, as is normal, they welded from 10 to 12 pipes a day. When the testing of the welded seams was to take place, everyone was excitedly anticipating the results. It was found that of 6,000 large welds made by Bulgarian welders, only 3 showed small leaks, while the admissible number of leaks is supposed to be 160.

What is the secret of this exceptional success? When this correspondent asked the four welders about this, they smiled slightly, and Krustyu Abadzhiev answered laconically, as if it were obvious and self-evident:

"All of us have been trained in the Soviet Union."

A large number of brigades and individual workers distinguished themselves in the installation work. Ivan Smilov's youth brigade, which works on lining the boiler with sheet-lead, is very well known at the "Maritsa III" TETs. It gave a pledge to fulfill its ten-day quotas in 9 days, but fulfilled them in 7 to 8 days.

In May the rotating red banner of the "Maritsa III" TETs was won by Ivan Dandilov's brigade, which worked on the heating surface.

- 5 -

RESTRICTED

RESTRICTED

Guided by the Party secretary and the technical administrator of the boiler shop, Khristo Tsenov, Dandilov's brigade used to fulfill its quotas by 200 to 220 percent. Once when there was an accident and the steel cable of the lifting crane was snapped by the oxygen welding apparatus, thus stopping the crane, the boys of Dandilov's brigade began to carry the heavy iron pipes on their backs to a height of 30 meters, in order not to lose precious time.

In the last days of July the builders at the "Maritsa III" TETs used to talk with great enthusiasm and pride about the great feat of the 7 brigades that had worked on the installing of gas pipes. The assembling of the gas pipes determined whether or not the boiler could be started up in time. According to the time table the gas pipes had to be installed in ⁸⁰ days -- from 1 May to 20 July. The delivery of the pipes was delayed for technical reasons and their mounting could not be started by 1 May. It was not until the middle of July that the last 3 carloads of gas pipes arrived and assembly became possible. Only a few days remained before the deadline of 20 July. Could the work of 80 days be performed in only a few days? The fitters decided that it could be done and should be done since the scheduled start of operations of the boiler and the entire plant depended on it. On 15 July the young administrator of the boiler shop, engineer Georgi T. Dimitrov, gave a pledge to the plant administration on behalf of his men, that by midnight of 23 July the installation of the gas pipes would be completed, so that the boiler could be started up on 24 July.

One hundred and thirty men tackled the job of installing the gas pipes. They worked day and night; there were no shifts and

RESTRICTED

RESTRICTED

everyone worked without interruption. The workers ate on the job, did not go to bed at night but stretched out on cement bags for 2 or 3 hours and that was their only rest during the 24-hour period. This correspondent saw some of the heroes of the gas-pipe assembly job during the last day of their work.

On 24 July, when the boiler was fired up, the chief administrator of the assembly work, the Soviet specialist, engineer Zrodnikov, was justified in declaring before the enthusiastic meeting of the fitters: "With a team such as was trained here at the "Maritsa III" TETs, not just one boiler, but as many as may be needed by the Bulgarian People's Republic, can be built."

With such workers' teams and with such men, Bulgaria will build many boilers and many plants -- as many as will be needed for the economic development and the prosperity of the country. With such men the Bulgarian People's Republic will overcome successfully all difficulties on the road to communism.

The "Maritsa III" TETs is at present passing through the glorious days of the beginning of its operation. Beginning of operation -- these are only two empty technical words, but how much exertion, excitement and effort they imply! The results of the work accomplished are checked, and machinery and equipment is tried out so that the plant can be put into operation.

In these days every hour brings an outstanding event -- the "flashes" and the loudspeakers announce the completion of another

RESTRICTED

RESTRICTED

installation ready to be tried out. And everyone feels more and more how the final hour is approaching when mighty electric power will be produced from Maritsa coal.

The following is the list of events that have taken place at the "Maritsa III" TETs within only 4 days -- from 21 to 24 July:

On 21 July the first trial operation of the electric motor of the boiler's ventilators took place. The electrical installation brigade of St. Stoev made sure of the necessary current for the trials of the electric motor by hard work and with the collaboration of the "Maritsa I" TETs.

On 23 July the water supply pumping station was put into operation. This supplies water to the chemical water purification plant. From there the water is sent to the boiler after it has been chemically purified. The fitters stood expectantly along the entire length of the pipes from the pumping station to the chemical water purifying installation, and at all intermediary pumps; all they thought about was whether the water would pass through the pipes. Hours passed and at last a happy smile brightened the faces of the men -- the pumping station was operating and sending water, the water was passing through the pipes, the machinery in the chemical water purification plant was starting to operate and sending water to the boiler.

On 24 July the boiler was fired up for drying the inside brickwork. This was an especially great victory and it heralded the imminent operation of the plant. The announcement that the boiler would be lighted at 1700 hours made all fitters flock to

RESTRICTED

RESTRICTED

the spacious boiler shop. On the platform before the slag pit were gathered the general director of the "Maritsa III" TETs, Comrade Delcho Vasilev, the chief engineer, Comrade Zrodnikov, Soviet and Bulgarian engineers and the Party secretary at the plant. In their short addresses Comrades Vasilev and Zrodnikov spoke of the indestructible Bulgarian-Soviet friendship, of which this marvelous victory is a fruit, and directed the thoughts of all present towards the great Stalin, teacher and leader of the Bulgarians, to whom they owe all that they have and will have. The enormous shop reverberated with loud hurrahs and the enthusiastic chanting of the fitters, while on the platform Bulgarian and Soviet administrators embraced each other. Delcho Vasilev lighted the fire in the boiler. The stack of the "Maritsa III" TETs was smoking.

Thus the "Maritsa III" TETs goes into harness. The fire will burn forever in the boiler of the new plant, and in the hearts of all patriots there will burn even more brightly the flame of love for the Party and Comrade Chervenkov, for the Soviet Union and the great Stalin, who are the source of all Bulgarian victories and the guarantee for the imminent triumph of socialism in Bulgaria.

Albert Koen

E N D

- 9 -

RESTRICTED

RESTRICTED

THE "REPUBLIKA" TETs (STEAM-HEAT AND ELECTRIC POWER PLANT) --
Sofia, Otechestven Front, 14 Aug 51

From a distance the buildings of the "Republika" TETs (Steam-Heat and Electric Power Plant) appear quite small. But on approaching the construction site and seeing the feverish activity that is going on, one feels proud of the magnificent creative ability of Bulgarian workers, who are here, as in so many other places of the homeland, building socialism and laying the foundations for a new and better life for Bulgaria.

Right at the very entrance to the construction site a large poster in red proclaims: "Comrades, the 15th of August draws near!"

These few words mean very little to a casual visitor who only knows from press reports that the "Republika" TETs will be put into trial operation on 15 August. But these words have a lot of meaning and are a source of inspiration to the builders of the plant.

The "Republika" TETs is an important sector in the front of peacetime Bulgarian socialist construction and it may be compared to a battle which is already won and in which builders and fitters are victoriously attacking the last positions.

- 1 -

RESTRICTED

RESTRICTED**MIGHTY INSTRUMENT OF BULGARIAN ECONOMIC EXPANSION**

All the structural parts of the plant dealing with water and coal are ready. The main industrial canal, 3 kilometers in length, which will bring water from the Struma river to the plant, is already dug. All mounting bases for the installation of machines are completed. The larger part of the electric installations are in place, not only for the deadline of 15 August, when the first group of turbines will be put into trial operation but also for the later date when the second group of turbines will be put into operation.

The "Republika" TETs will produce more electric power per year than was produced by all electric power plants in Bulgaria up to 9 September 1944. Together with the hydroelectric power plants in the Rila Mountains, the "Republika" TETs will be in a position to satisfy not only the needs of industry and the population in Southwestern Bulgaria, but will also supplement the electric power supply of Northern Bulgaria, as far as the Dobrudzha, by means of long-range transmission lines of 60 and 110 kilovolts capacity.

This is not the only important aspect of the "Republika" TETs for the Bulgarian economy. The boilers of the plant are designed to use as basic fuel the kinds of coal which cannot be used at present and are thrown away, namely, peat of very low caloric content, coal dust and the residue from coal-washing

- 2 -

RESTRICTED

RESTRICTED

installations which will be constructed near the plant. The fire chambers of the plant will consume about 100 tons of these types of fuel hourly. In this way the "Republika" TETs, one of the largest and most modern steam-heat and electric power plants in Bulgaria, will assure continued operation of the "Dimitrovo" Mines and thus contribute to supplying the people with high-grade coal and help the nation save billions of leva annually.

PATRIOTIC INITIATIVE OF THE BUILDERS

The "Republika" TETs was supposed to be put into trial operation by the end of the year. But the example of speeded-up construction of the "Stalin" Nitrogen Fertilizer Plant and the "Maritsa III" Steam-Heat and Electric Power Plant, which were started with patriotic enthusiasm by the heroic builders of Dimitrograd in November of last year, inspired the builders of the "Republika" TETs and filled them with enthusiasm. On 14 January of this year, on the initiative of the annual Party organization meeting, which expressed the will of all the builders, it was decided to advance the deadline for completion of construction and assembly work and to put the plant into trial operation on 15 August.

Everyone applied himself to the task and feverish activity got under way.

"We knew that in order to fulfill our solemn pledge to the Party and the government we had to overcome great diffi-

- 3 -

RESTRICTED

RESTRICTED

culties, but we also knew that we would overcome them" -- stated the Party organizer, Dragomir Danailov, a man of 40, with a rather stern but intelligent face.

Wherever difficulties have been overcome and great labor achievements have been made one can see the imprint of the inspiring, controlling and organizing hand of the Party bureau and its comradely assistance which increases the faith of the workers in their own strength and introduces Soviet methods of work.

NEW PEOPLE

Work is still in full swing on the enormous boiler which is 30 meters high. The maze of wooden structures has been removed from the extraordinary framework of steel structures, steam pipes, air pipes, gas pipes and concrete pillars making up this boiler which takes coal and water and produces steam for the turbines which generate electric power.

At this spot some of the best assembly brigades of the "Republika" TETs are working, namely, "Stakhanov", "La Pasionariya" and "N. Shopov". They consist exclusively of young men. Ivan Mikhaylov, a responsible official of the Party group, is leader of the "Stakhanov" brigade. A member of his brigade states: "We, the members of his brigade, do not know when that man sleeps nor how he stands the strain".

RESTRICTED

RESTRICTED

Before the first trial operation of the boiler, Ivan Mikhaylov and Boris Stoynev worked for 48 hours without rest.

When this correspondent repeated to Ivan Mikhaylov the appreciation of his fellow-workers, he gave this answer in a bored manner: "Bah, why should we sleep now? The fifteenth of August is only a few days away. We ourselves set that deadline. Should we be humiliated before the Party and the people? We shall sleep later."

A poster on the wall reads as follows: "We are building without the bourgeoisie and against the bourgeoisie". The conversation turns to this slogan. Ivan Mikhaylov says with pride in his voice: "Isn't the Court House at Sofia the largest structure erected before the ninth of September? And how many years did it take to erect that building? The greedy building contractors dragged out the construction for years so that they could swallow fat commissions. Today we have no contractors and are building for the people and for ourselves. That is why we build well and fast".

Boris Stoynev says: "When I see how fast our plant is growing and how it becomes more beautiful with each new day, the days and nights pass unnoticed."

A former mechanic at the "Pirin" Mine, Boris Stoynev had left the mine because he wanted to help in the building of the beautiful "Republika" TETs. He works with great enthusiasm

RESTRICTED

RESTRICTED

and has achieved 147 percent fulfillment of the plan. He refused to take the vacation offered to him. How could he possibly leave the boiler before it was started up? His answer to the Party organizer was: "Let the wheels start turning and the smokestack start smoking. Then I will rest".

At night one can see the white contours of the cooling towers and the 125-meter high chimney outlined against the sky. But the buildings of the plant and the entire boiler shop are flooded with electric light because there is work going on inside. Above the pipes two shock workers and their comrades are working.

INCESSANT LABOR HEROISM

There are tens and hundreds of shock workers like Boris Stoynev and Ivan Mikhaylov rapidly pushing forward the construction of the "Republika" TETs.

Under the leadership of the diligent and tireless Slav Zakharinov the "Boyko" brigade of diggers and plumbers completed the main canal under very difficult conditions, 9 meters underground, and often standing in water up to their knees.

The prize-winning "Vulko Chervenkov" coffer construction brigade, winner of the rotating red banner of the "Sovbolstroy" (Soviet-Bulgarian Construction) Enterprise, works on the tallest projects -- the stack, the excavations and the cooling towers.

RESTRICTED

RESTRICTED

Applying Soviet construction methods under the guidance of the first shock worker, Boris Eftimov, inventor of the creeping coffer construction, this brigade saved millions of leva and furnished examples of labor heroism by finishing the construction of the highest smokestack in the country 7 days before the deadline.

Under the technical guidance of N. Manov, the assembly brigades of St. Serafimov, Tsanko Begov and Asen Rangelov assembled the 6 kilovolt installations 10 days before the deadline.

The four assembly brigades of the 60 and 110 kilovolt open-transformer installation, under the guidance of the energetic fitter Georgi Antonov, assembled the equipment before the deadline by constantly encouraging competition among themselves. At the very beginning of the accelerated-construction period 15 men from these brigades built themselves hut next to the construction site so that they would not have to go and spend the night in their villages.

But these are not the only labor achievements of the builders and fitters of the "Republika" TETs. There is no brigade and shop that has not obtained great results, has not produced winners, sample labor heroes who spare neither energy nor effort and who sacrifice sleep and rest so that they could fulfill with honor the pledge given to the Party and the country.

RESTRICTED

RESTRICTED**BROTHERLY ASSISTANCE**

The "Republika" TETs is being constructed with the brotherly assistance of the Czechoslovak Democratic Republic which sent to Bulgaria very valuable machines and equipment. It is being constructed with the aid of about 70 Czech specialists -- turbine fitters, electric welders, boiler-fitters, pipe-layers and electricians. They have supervised the assembly of the machinery of a large number of electric power plants in their own country and abroad. They have a great deal of experience which they are now passing on to the Bulgarian fitters in addition to helping them as comrades. Even the Czech specialists are surprised by the initiative of the Bulgarian builders and fitters and their enthusiasm for work. After the instrument-room brigades under the technical guidance of Kamen Stanoev laid all the cables in 13 days instead of 24, the Czech specialist Irzhi Pokhoni declared in astonishment: "I did not believe it to be possible. Now I can see that you, too, have the capacity to overcome the biggest difficulties".

The Czech turbine-assembly specialist Kashparek, who works in the machine room, also does not conceal his surprise at the accelerated tempo made possible by the labor heroism of Bulgarian workers.

He says: "While working on this assembly job I became convinced that assembling can be done differently from the way we have been doing it up to now."

RESTRICTED

RESTRICTED

Under the unceasing and inspiring care of the Bulgarian Communist Party and on every socialist construction project the new men of Bulgaria grow from the bosom of the Bulgarian people. The "Republika" TETs has created its own heroic socialist workers. The country is indebted to their labor achievements for putting into operation before the deadline this ultramodern and mighty steam-heat and electric power plant which will bring prosperity to the entire industrial population of this region. It will furnish new lifeblood to Bulgarian industry, will give new impetus to socialist construction and will contribute greatly to the prosperity of the whole country.

E N D

- 9 -

RESTRICTED